Addition of New BMP Stat Types

draft-ietf-grow-bmp-bgp-rib-stats-03

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IETF-120
Introduction

- BMP RFC7854 defines several different BMP statistics types to observe interesting events that occur on the router.
- As the BGP protocol continues to expand, more and more functional features are implemented through the BGP protocol, which adds more event information to monitor these functional features.
- The current types are incomplete and cannot meet the requirements of observation.
- This document defines some statistics types for BMP statistics message to update RFC 7854 for enriching events of interest to routers.
Overview

The content of draft-liu-grow-bmp-stats-reports-00 have been merged into draft-ietf-grow-bmp-bgp-rib-stats-03 and made modifications based on comments.

<table>
<thead>
<tr>
<th>RIB-IN</th>
<th>RIB-OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>routes in Adj-RIBs-In-Pre-Policy</td>
<td>routes left until reaching the license-customized route threshold</td>
</tr>
<tr>
<td>routes in per-AFI/SAFI Adj-RIBs-In-Pre-Policy</td>
<td>routes in per-AFI/SAFI left until reaching the license-customized route threshold.</td>
</tr>
<tr>
<td>routes in Adj-RIBs-In-Post-Policy</td>
<td>routes rejected by exceeding the length threshold of as-path</td>
</tr>
<tr>
<td>routes in per-AFI/SAFI Adj-RIBs-In-Post-Policy</td>
<td>routes in per-AFI/SAFI rejected by exceeding the length threshold of as-path.</td>
</tr>
<tr>
<td>routes in per-AFI/SAFI rejected by inbound policy</td>
<td>routes invalidated by RPKI validation</td>
</tr>
<tr>
<td>routes in per-AFI/SAFI accepted by inbound policy</td>
<td>routes validated by RPKI validation</td>
</tr>
<tr>
<td>routes in per-AFI/SAFI selected as primary route</td>
<td>routes not found by RPKI validation</td>
</tr>
<tr>
<td>routes in per-AFI/SAFI selected as backup route</td>
<td></td>
</tr>
<tr>
<td>routes in per-AFI/SAFI suppressed by configured route damping policy</td>
<td></td>
</tr>
<tr>
<td>routes in per-AFI/SAFI marked as stale by LLGR</td>
<td></td>
</tr>
<tr>
<td>routes left until reaching the received route threshold</td>
<td></td>
</tr>
<tr>
<td>routes in per-AFI/SAFI left until reaching the received route threshold</td>
<td></td>
</tr>
</tbody>
</table>

Merged into

draft-liu-grow-bmp-stats-reports-00
draft-ietf-grow-bmp-bgp-rib-stats-03
Proposal (RIB-IN)

- Type = TBD12: (64-bit Gauge) Number of routes left until reaching the received route threshold.
- Type = TBD13: (64-bit Gauge) Number of routes in per-AFI/SAFI left until reaching the received route threshold.
- Type = TBD14: (64-bit Gauge) Number of routes left until reaching the license-customized route threshold.
- Type = TBD15: (64-bit Gauge) Number of routes in per-AFI/SAFI left until reaching the license-customized route threshold.

Since the license-customized route threshold is vendor specific, this type value (TBD14/TBD15) SHOULD use enterprise-specific TLV encoding as described in Section 3.3 of [I-D.ietf-grow-bmp-tlv-ebit].
Proposal (RIB-IN)

- Type = TBD16: (64-bit Gauge) Current Number of routes rejected by exceeding the length threshold of as-path.

- Type = TBD17: (64-bit Gauge) Current Number of routes in per-AFI/SAFI rejected by exceeding the length threshold of as-path.

- Type = TBD18: (64-bit Gauge) Current Number of routes in per-AFI/SAFI Adj-RIBs-In-Post-Policy invalidated by verifying route origin Autonomous System (AS) number through the Route Origin Authorization (ROA) of Resource Public Key Infrastructure (RPKI).

- Type = TBD19: (64-bit Gauge) Current Number of routes in per-AFI/SAFI Adj-RIBs-In-Post-Policy validated by verifying route origin Autonomous System (AS) number through the Route Origin Authorization (ROA) of Resource Public Key Infrastructure (RPKI).
Proposal(RIB-IN)

- Type = TBD20: (64-bit Gauge) Current Number of routes in per-AFI/SAFI Adj-RIBs-In-Post-Policy not found by verifying route origin Autonomous System (AS) number through the Route Origin Authorization (ROA) of Resource Public Key Infrastructure (RPKI).
Proposal (RIB-OUT)

- **Type = TBD21**: (64-bit Gauge) Current number of routes in per-AFI/SAFI rejected by outbound policy.

- **Type = TBD22**: (64-bit Gauge) Current Number of routes refused to be sent by exceeding the length threshold of as-path.

- **Type = TBD23**: (64-bit Gauge) Current Number of routes in per-AFI/SAFI refused to be sent by exceeding the length threshold of as-path.

- **Type = TBD24**: (64-bit Gauge) Current Number of routes in per-AFI/SAFI Adj-RIBs-Out-Post-Policy invalidated by verifying route origin Autonomous System (AS) number through the Route Origin Authorization (ROA) of Resource Public Key Infrastructure (RPKI).
Proposal (RIB-OUT)

- Type = TBD25: (64-bit Gauge) Current Number of routes in per-AFI/SAFI Adj-RIBs-Out-Post-Policy validated by verifying route origin Autonomous System (AS) number through the Route Origin Authorization (ROA) of Resource Public Key Infrastructure (RPKI).

- Type = TBD26: (64-bit Gauge) Current Number of routes in per-AFI/SAFI Adj-RIBs-Out-Post-Policy not found by verifying route origin Autonomous System (AS) number through the Route Origin Authorization (ROA) of Resource Public Key Infrastructure (RPKI).
• Asking for comments and feedbacks.
• Welcome to have exchanges on the mailing list.
Thank You